

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P544706

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-81-87-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P544706
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-1-LD4-1HI-40-UNV-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

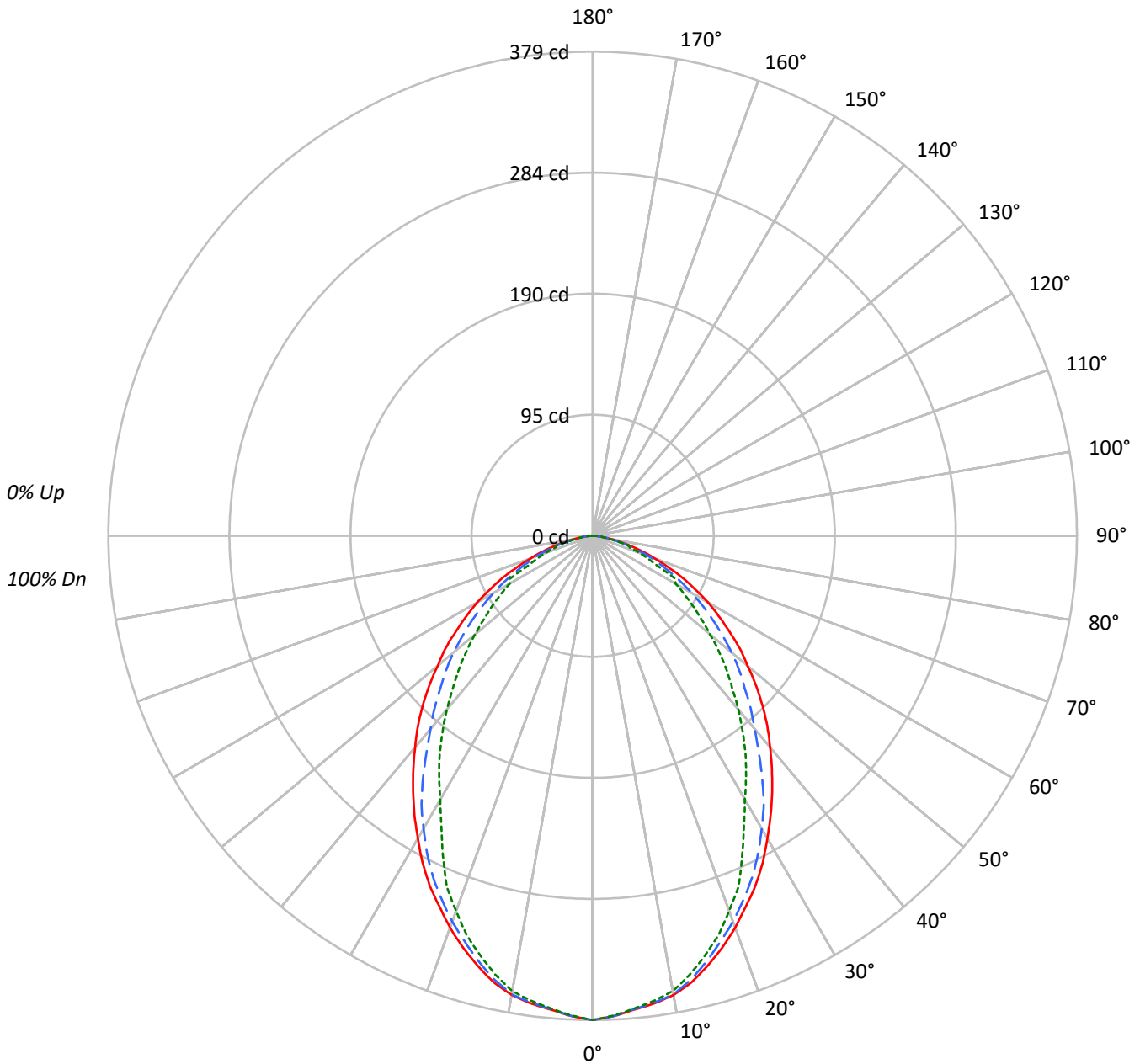
Lumens per Lamp: N/A
Luminaire Lumens: 744.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4080	4080	4080
5°	4024	4019	4014
10°	3989	3984	3956
15°	3881	3842	3789
20°	3739	3679	3578
25°	3586	3507	3289
30°	3398	3289	2962
35°	3218	3039	2741
40°	3035	2771	2493
45°	2862	2560	2254
50°	2649	2378	2009
55°	2451	2154	1802
60°	2245	1925	1612
65°	1974	1686	1429
70°	1627	1476	1215
75°	1293	1131	1185
80°	868	812	762
85°	543	655	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.3	4.7
10°-20°	96.8	13.0
20°-30°	134.0	18.0
30°-40°	142.9	19.2
40°-50°	130.4	17.5
50°-60°	102.1	13.7
60°-70°	66.6	8.9
70°-80°	29.5	4.0
80°-90°	6.3	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	266.1	35.8
0°-40°	409.1	55.0
0°-60°	641.6	86.2
0°-90°	744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	372	372	372	372	372	35
15°	348	348	345	341	340	98
25°	302	300	295	285	277	139
35°	245	243	231	214	209	153
45°	188	184	168	154	148	145
55°	131	127	115	101	96	117
65°	78	73	66	68	56	76
75°	31	29	27	26	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	379.0	379.0	379.0	379.0	379.0
2.5°	376.4	376.4	376.4	375.9	375.9
5°	372.4	372.0	372.0	371.5	371.5
7.5°	369.3	368.9	368.5	368.0	367.2
10°	365.0	365.0	364.5	362.3	361.9
12.5°	358.0	357.5	355.8	352.7	351.8
15°	348.3	348.3	344.8	341.3	340.0
17.5°	337.8	337.4	333.0	329.5	327.7
20°	326.4	325.5	321.2	315.5	312.4
22.5°	313.7	313.7	308.4	301.0	297.9
25°	301.9	300.1	295.3	284.8	276.9
27.5°	288.3	285.7	280.4	265.5	256.3
30°	273.4	272.1	264.6	245.4	238.3
32.5°	259.4	257.2	249.3	229.1	223.4
35°	244.9	243.2	231.3	213.8	208.6
37.5°	230.5	228.3	213.4	199.3	192.8
40°	216.0	213.4	197.2	184.5	177.4
42.5°	202.4	198.9	183.1	169.6	161.7
45°	188.0	184.0	168.2	154.2	148.1
47.5°	173.5	170.0	155.5	141.1	134.1
50°	158.2	155.1	142.0	127.5	120.0
52.5°	145.5	140.6	127.9	113.5	107.3
55°	130.6	126.6	114.8	101.2	96.0
57.5°	117.0	113.0	102.1	89.4	85.0
60°	104.3	98.6	89.4	78.4	74.9
62.5°	90.3	85.9	78.0	68.8	73.2
65°	77.5	73.2	66.2	67.5	56.1
67.5°	63.5	61.3	55.2	49.1	47.3
70°	51.7	49.1	46.9	40.3	38.6
72.5°	41.2	38.6	35.5	32.0	30.7
75°	31.1	28.9	27.2	25.8	28.5
77.5°	21.5	20.6	19.3	18.0	17.5
80°	14.0	13.6	13.1	12.7	12.3
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.4	4.8	5.3	5.7	6.1
87.5°	2.6	2.6	3.1	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)